abcam

Product datasheet

Annexin V-FITC Apoptosis Staining / Detection Kit ab14085

3 Abreviews 478 References 4 Images

Overview

Product name	Annexin V-FITC Apoptosis Staining / Detection Kit
Sample type	Adherent cells, Suspension cells
Assay type	Direct
Assay time	0h 10m
Product overview	Annexin V-FITC Apoptosis Staining / Detection Kit ab14085 is used in a 10 min, one-step staining procedure to detect apoptosis by staining phosphatidylserine molecules which have translocated to the outside of the cell membrane. Analysis is by flow cytometry or fluorescence microscopy. The kit can differentiate apoptosis vs necrosis when performing both Annexin V-FITC and PI staining. The Annexin V-FITC reagent contained in the kit is also available as Annexin V-FITC reagent **ab14082**.
Notes	This product is manufactured by BioVision, an Abcam company and was previously called K101 Annexin V-FITC Apoptosis Kit. K101-100 is the same size as the 100 test size of ab14085. Soon after initiating apoptosis, cells translocate membrane phosphatidylserine molecules from the inner face of the plasma membrane to the cell surface. Phosphatidylserine on the cell surface is detected by staining with a fluorescent conjugate of Annexin V, a protein that has a high affinity for phosphatidylserine. For more apoptosis assays, review the full set of **Annexin V assays**, or the **apoptosis assay and apoptosis marker guide**.
Platform	Flow cytometer, Fluorescence microscope

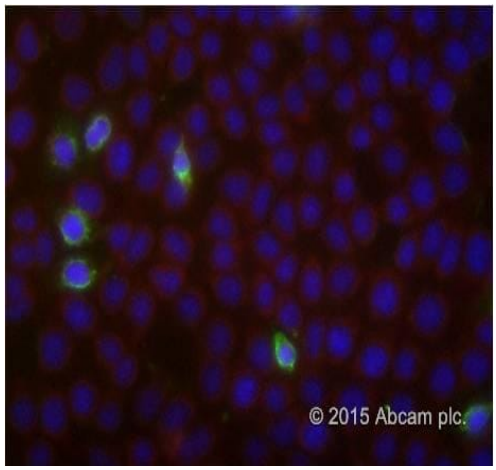
Properties

Storage instructions	Store at +4°C. Please refer to protocols.

Components	100 tests
Annexin V-FITC II	1 x 500µl
Binding Buffer II	1 x 50ml
Propidium Iodide II	1 x 500µl

Function	This protein is an anticoagulant protein that acts as an indirect inhibitor of the thromboplastin-specific complex, which is involved in the blood coagulation cascade.
Involvement in disease	Pregnancy loss, recurrent, 3
Sequence similarities	Belongs to the annexin family. Contains 4 annexin repeats.
Domain	The [IL]-x-C-x-x-[DE] motif is a proposed target motif for cysteine S-nitrosylation mediated by the iNOS-S100A8/A9 transnitrosylase complex. A pair of annexin repeats may form one binding site for calcium and phospholipid.
Post-translational modifications	S-nitrosylation is induced by interferon-gamma and oxidatively-modified low-densitity lipoprotein (LDL(ox)) possibly implicating the iNOS-S100A8/9 transnitrosylase complex.

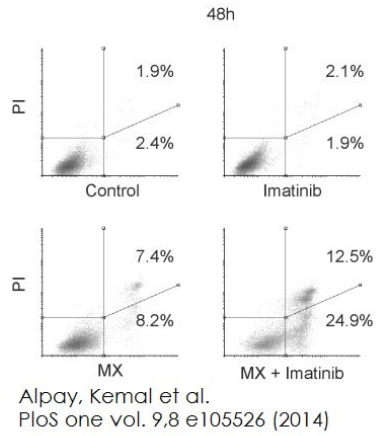
Images



Apoptosis in Mouse Cortical Collecting Duct Cells

Image courtesy of an anonymous abreview

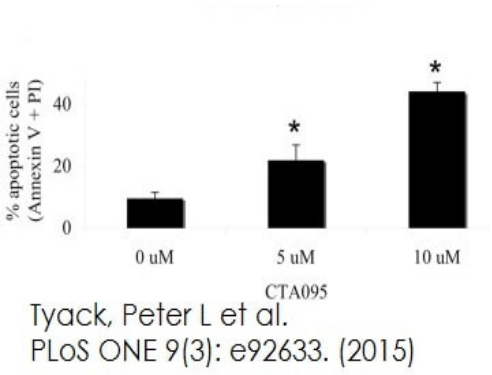
Ab14085 was used to determine minor levels of apoptosis (using both the Annexin V-FITC and PI) in mouse cortical collecting duct cellss (mCCDs). mCCD cells were incubated with serum free medium for 48h. The green label on the plasma membrane (Annexin V-FITC) and the absence of nuclear red (PI) staining indicates apoptosis rather than necrosis. Fluorescent microsocpy ws used to analyse the cells.



Flow cytometery analysis of treated HeLa cells for 48 hours

HeLa cells were harvested with trypsinization together with floating non-viable cells. Cells were washed with PBS and suspended in sodium citrate buffer 20 minutes prior to analysis. HeLa cells were treated with Mitoxantrone (MX) and MX +Imatinib for 48 hours. The samples were then stained with Annexin V-FITC Apoptosis Staining/Detection kit (ab14085). A FACSCalibur flow cytometer was used for cell cycle analysis.

This is a modified version of the original image



Analysis of apoptosis in prostate cancer cells following treatment with CTA095

PC3 cells were seeded at 10^6 cells/ml and incubated overnight and then treated with CTA095 at various concentrations for 24hours. Apoptosis was then analyzed using Annexin-V FITC apoptosis detection kit (ab14085).

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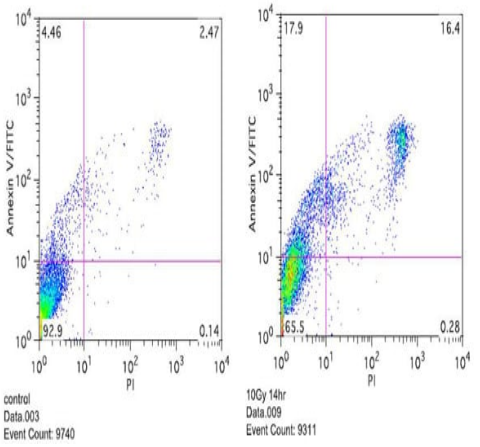

Functional Studies - Annexin V-FITC Apoptosis Detection Kit (ab14085)

Annexin V-FITC/ PI staining of AG06173 primary fibroblasts.
10^5 cells were used for analysis. Resuspended cells were incubated with Annexin V-FITC for 15 min in the dark. Propidium iodide (**ab14083**) was used as a counterstain to discriminate necrotic/ dead cells from apoptotic cells. *Left:* negative control - AG6173 untreated cells. *Right:* positive control - AG6173 cells irradiated at 10 Gy.
Image courtesy of S. Khoronenkova PhD, Gray Institute for Radiation Oncology and Biology, University of Oxford, Oxford, UK.

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